### **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims:**

1. (Currently amended) A compound comprising the formula:

$$\begin{array}{c|c}
R_4 & & \\
\hline
Z & R_6 & \\
\end{array}$$

$$(I)$$

wherein:

 $X_1A$  is a residue of a releasable biologically active moiety;

 $R_1$  and  $R_2$  are individually selected from the group consisting of H, CH<sub>3</sub>,  $C_2$ - $C_{10}$  alkyls,  $C_2$ - $C_{10}$  alkenyls or  $C_2$ - $C_{10}$  alkynyls, each of which can be substituted or unsubstituted; straight or branched,  $C_2$ - $C_{10}$  heteroalkyls,  $C_2$ - $C_{10}$  heteroalkenyls or  $C_2$ - $C_{10}$  heteroalkynyls and –( $CR_{15}R_{16}$ )<sub>p</sub>-D;

wherein:  $R_{15}$  and  $R_{16}$  are individually selected from the group consisting of H,  $CH_3$ ,  $C_2$ - $C_{10}$  alkyls,  $C_2$ - $C_{10}$  alkenyls or  $C_2$ - $C_{10}$  alkynyls, each of which can be substituted or unsubstituted; straight or branched; and  $C_2$ - $C_{10}$  heteroalkyls,  $C_2$ - $C_{10}$  heteroalkynyls;

p is a positive integer from 1 to about 12;

D is selected from among -SH, -OH, X<sub>2</sub>, -CN, -OR<sub>19</sub>, NHR<sub>20</sub>,

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

wherein:

 $R_{17}$  is H,  $CH_3$  or  $X_3$ ;

 $R_{18}$  is H, a  $C_1$ - $C_4$  alkyl or benzyl;

 $R_{19}$  is H, a  $C_{1-4}$  alkyl,  $X_2$  or benzyl;

 $R_{20}$  is H, a  $C_{1-10}$  alkyl or  $-C(O)R_{21}$ , wherein  $R_{21}$  is H, a  $C_{1-4}$  alkyl or alkoxy, t-butoxy or benzyloxy;  $X_2$  and  $X_3$  are independently selected halogens;

 $R_3$  is H, CH<sub>3</sub>, or  $-C(=O)(CR_{15}R_{16})_w$ -D,

where w is 0 or an integer from 1 to about 12, and D is H or as described for R<sub>1</sub> and R<sub>2</sub>.

J is O, NH or S;

R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are independently selected from the group consisting of H, CH<sub>3</sub>,

 $C_2$ - $C_{10}$  alkyls,  $C_2$ - $C_{10}$  alkenyls or  $C_2$ - $C_{10}$  alkynyls, each of which can be substituted or unsubstituted; straight or branched;  $C_2$ - $C_{10}$  heteroalkyls, heteroalkenyls or heteroalkynyls and halogens;

Z is H, NR<sub>7</sub>R<sub>8</sub> or

wherein  $R_7$  is selected from among H,  $CH_3$ ,  $C_2$ - $C_{10}$  alkyls, alkenyls or alkynyls which can be substituted or unsubstituted; straight or branched;  $C_2$ - $C_{10}$  heteroalkyls, heteroalkenyls or heteroalkynyls, or  $-(CR_{23}R_{24})_q$ -aryl, or  $R_8$ ,

wherein  $R_{23}$  and  $R_{24}$  are independently selected from the group consisting of H and  $C_1$ - $C_{10}$  alkyls; q is an integer from 1 to about 6;

 $R_8$  is selected from the group consisting of  $(CR_9R_{10})_n$ -NR<sub>22</sub>-R<sub>11</sub>,  $(CR_9R_{10})_n$ -CH<sub>2</sub>-NHC(O)R<sub>26</sub> and  $(CR_9R_{10})_n$ -CH<sub>2</sub>-E;

wherein  $R_9$  and  $R_{10}$  are independently selected from the group consisting of H, CH<sub>3</sub>,  $C_2$ - $C_{10}$  alkyls,  $C_2$ - $C_{10}$  alkenyls or  $C_2$ - $C_{10}$  alkynyls, each of which can be substituted or unsubstituted; straight or branched;  $C_2$ - $C_{10}$  heteroalkyls,  $C_2$ - $C_{10}$  heteroalkynyls and halogens;

R<sub>26</sub> is H, CH<sub>3</sub>, O-t-butyl, O-benzyl;

E is OH, SH or O-C(O) $R_{27}$ ,

wherein R<sub>27</sub> is a C<sub>1</sub>-C<sub>6</sub> alkyl, benzyl or phenyl;

 $R_{22}$  is H or  $CH_3$ ;

n is a positive integer from 1 to about 10;

 $R_{11}$  is H or -L-B,

wherein L is a linker; and

B is an active moiety, reactive group moiety or a polymer; and

 $R_{25}$  is H, -C(O)- $R_{28}$  or -C(O)-O- $R_{29}$ ,

wherein R<sub>28</sub> is a C<sub>1-</sub>C<sub>6</sub> alkyl or benzyl; and R<sub>29</sub> is CH<sub>3</sub>, t-butyl or benzyl.

- 2. (Original) The compound of claim 1, wherein  $X_1$  is O, NH, or S.
- 3. (Original) The compound of claim 2, wherein said residue of said biologically active moiety is selected from the group consisting of synthetic or naturally occurring organic compounds.
- 4. (Original) The compound of claim 3 wherein said organic compounds are selected from the group consisting of chemotherapeutics, antibiotics, antivirals, antifungals, and diagnostics.
- 5. (Original) The compound of claim 4, wherein said chemotherapeutics are selected from the group consisting of taxanes, taxane derivatives, paclitaxel, paclitaxel derivatives, docetaxel, docetaxel derivatives, camptothecin, camptothecin derivatives, doxorubicin, doxorubicin derivatives, amethopterin, etoposide, irinotecan and fluconazole.
- 6. (Original) The compound of claim 5, wherein said chemotherapeutic is paclitaxel.
- 7. (Original) The compound of claim 2, wherein said residue of said biologically active moiety is selected from the group consisting of proteins, polysaccharides, nucleic acids, cytokines, growth factors, antibodies, mABs, single chain antibodies (scFv), hormones and lipids.
- 8. (Original) The compound of claim 1, wherein Z is  $NR_7R_8$ .
- 9. (Original) The compound of claim 8, wherein R<sub>8</sub> is -CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>.
- 10. (Original) The compound of claim 8, wherein  $R_8$  is  $(CR_9R_{10})_n$ - $NR_{22}$ - $R_{11}$ .
- 11. (Original) The compound of claim 1, wherein L-B comprises a maleimidyl or an N-hydroxysuccinimidyl group.
- 12. (Original) The compound of claim 10, wherein  $R_{11}$  comprises a polyalkylene oxide residue.
- 13. (Original) The compound of claim 12, wherein said polyalkylene oxide residue is a polyethylene glycol.

- 14. (Original) The compound of claim 13, wherein said polyethylene glycol has a number average molecular weight of from about 2,000 to about 200,000 daltons.
- 15. (Original) The compound of claim 10, wherein R<sub>11</sub> comprises a polymer selected from the group consisting of collagen, glycosaminoglycan, poly(-aspartic acid), poly(-L-lysine) poly(-lactic acid), copolymers of poly(-lactic acid) and poly(-glycolic acid) and poly-N-vinylpyrrolidone.
- 16. (Original) A compound of claim 1, selected from the group consisting of:

wherein d is a positive integer and  $R_{30}$  is H, tBoc, fMoc or a blocking group.

17. A compound of claim 1, selected from the group consisting of:

and 
$$\begin{array}{c} O \\ N - O - (CH_2)_d \\ O \end{array}$$
  $\begin{array}{c} O \\ H \\ N \\ R_{30} \end{array}$ 

wherein d is a positive integer and  $R_{30}$  is H, tBoc, fMoc or a blocking group.

### 18. (Original) A compound of claim 1, selected from the group consisting of:

wherein  $X_1A$  is a residue of a releasable biologically active moiety; and  $R_{30}$  is H, tBoc, fMoc or a blocking group.

19. (Original) A compound of claim 1, selected from the group consisting of:

wherein  $X_1A$  is a residue of a releasable biologically active moiety; and  $R_{30}$  is H, tBoc, fMoc or a blocking group.

# 20. (Original) A compound of claim 19, selected from the group consisting of:

wherein  $R_{30}$  is H, tBoc, fMoc or a blocking group.

## 21. (Original) A compound of claim 19, wherein X<sub>1</sub>A is selected from the group consisting of:

O OH OH

where \* represents the point of attachment.

22. (Original) A compound of claim 19, selected from the group consisting of

23. (Original) The compound of claim 1, wherein J is O,  $R_2$  is H,  $R_7$  is  $CH_3CH_2$ ;  $R_8$  is  $-(CR_9R_{10})_n$ - $NR_{22}$ - $R_{11}$ , n is 2, and  $R_9$  and  $R_{10}$  are both H.

24. (Original) The compound of claim 1, wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are independently selected from the group consisting of H, CH<sub>3</sub> and CH<sub>3</sub>CH<sub>2</sub>.

25. (Original) The compound of claim 1, wherein  $R_7$  is  $CH_3CH_2$ ; wherein  $R_8$  is  $-(CR_9R_{10})_n$ - $NR_{22}$ - $R_{11}$ , n is 2, and  $R_9$  and  $R_{10}$  are both H.

26. (Original) A pharmaceutically acceptable salt of the compound of claim 1.

27. (Original) A pharmaceutically acceptable salt of the compound of claim 20.

28. (Original) A pharmaceutically acceptable salt of the compound of claim 21.

29. (Currently Amended) A method of <u>treating mammals with prodrugs</u> treatment, comprising: administering to a mammal in need of such treatment an effective amount of a <u>prodrug</u> compound of claim 1, where X<sub>1</sub>A is a residue of a <u>releasable</u> biologically active moiety, and allowing the releasable biologically active moiety to release from the prodrug in vivo.

30. (Currently Amended) The method of claim 29, further comprising exposing the <u>prodrug</u> compound of claim 1 to an energy source after administration to said mammal.

31. (Original) The method of claim 30, wherein the energy source is white light having a wavelength in the range from 340 to 700 nm.

32. (Original) The method of claim 31, wherein the energy source is white light having a wavelength in the range from 350- 420 nm.

33. (Original) The method of claim 30, wherein the energy source is selected from the group consisting of microwave, ultrasound, radio energy, gamma radiation, radioactivity, ultraviolet light and infrared light.

34. (Currently Amended) A method of preparing a conjugate, comprising: reacting a cinnamic acid derivative of the formula

$$R_4 \xrightarrow{JR_3} R_2 \xrightarrow{O} X_4$$

$$Z_1 \xrightarrow{R_5} R_6$$

wherein

X<sub>4</sub> is a reactive terminal group;

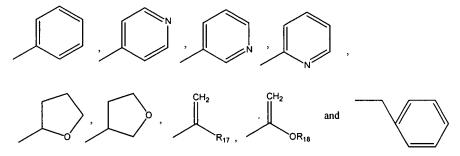
 $R_1$  and  $R_2$  are individually selected from the group consisting of H, CH<sub>3</sub>,  $C_2$ - $C_{10}$  alkyls,  $C_2$ - $C_{10}$  alkenyls or  $C_2$ - $C_{10}$  alkynyls, each of which can be substituted or unsubstituted; straight or branched,  $C_2$ - $C_{10}$  heteroalkyls,  $C_2$ - $C_{10}$  heteroalkenyls or  $C_2$ - $C_{10}$  heteroalkynyls and –  $(CR_{15}R_{16})_0$ -D;

wherein:  $R_{15}$  and  $R_{16}$  are individually selected from the group consisting of H,  $CH_3$ ,

 $C_2$ - $C_{10}$  alkyls,  $C_2$ - $C_{10}$  alkenyls or  $C_2$ - $C_{10}$  alkynyls, each of which can be substituted or unsubstituted; straight or branched; and  $C_2$ - $C_{10}$  heteroalkyls,  $C_2$ - $C_{10}$  heteroalkenyls or  $C_2$ - $C_{10}$  heteroalkynyls;

p is a positive integer from 1 to about 12;

D is selected from among -SH, -OH, X2, -CN, -OR19, NHR20,



wherein:

 $R_{17}$  is H, a CH<sub>3</sub> or X<sub>3</sub>;

R<sub>18</sub> is H, a C<sub>1</sub>-C<sub>4</sub> alkyl or benzyl;

 $R_{19}$  is H, a  $C_{1-4}$  alkyl,  $X_2$  or benzyl;

 $R_{20}$  is H, a  $C_{1-10}$  alkyl or  $-C(O)R_{21}$ ,

wherein R<sub>21</sub> is H, a C<sub>1-4</sub> alkyl or alkoxy, t-butoxy or benzyloxy;

X<sub>2</sub> and X<sub>3</sub> are independently selected halogens;

 $R_3$  is H, CH<sub>3</sub>, or  $-C(=O)(CR_{15}R_{16})_wD$ ,

where w is 0 or an integer from 1 to about 12, and D is H or as described for  $R_1$  and  $R_2$  J is O, NH or S;

R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are independently selected from the group consisting of H, CH<sub>3</sub>,

 $C_2$ - $C_{10}$  alkyls,  $C_2$ - $C_{10}$  alkenyls or  $C_2$ - $C_{10}$  alkynyls, each of which can be substituted or unsubstituted; straight or branched;  $C_2$ - $C_{10}$  heteroalkyls, heteroalkenyls or heteroalkynyls and halogens;

Z<sub>1</sub> is H or a member of the group consisting of

R<sub>30</sub> is H, tBoc, fMoc or a blocking group;

wherein

with a biologically active moiety under conditions sufficient to cause covalent attachment of said biologically active moiety to said cinnamic acid derivative.